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ABSTRACT

To examine faculty development activities to improve teaching effectiveness, a midwestern college awarded grants to 17 faculty members for the purpose of revising existing courses and/or developing new courses. The faculty members had from 3 to 23 years of experience and represented all academic divisions. Student evaluations of a total of 27 courses provided the data for the study. A comparison of student ratings before and after course revision revealed a statistically significant difference in favor of revised courses. A comparison of student ratings of new courses and student ratings of college-wide existing courses revealed no statistical differences, despite the difficulties likely to accompany a first try at new courses. Data are presented in four tables. (KM)

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Student Response to Faculty Development Activities: A Case Study

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Abstract

With support from the Bush Foundation, a Midwestern college awarded small grants to faculty members for course revision and course development. A comparison of student ratings before and after course revision revealed a statistically significant difference in favor of revised courses; a comparison of student ratings of new courses and student ratings of college-wide existing courses revealed no statistical differences despite the difficulties likely to accompany a first try at new courses.

STUDENT RESPONSE TO FACULTY DEVELOPMENT ACTIVITIES: A CASE STUDY

Faculty vitality is a much discussed topic today and so it should be if Blackburn was correct in stating that a college's faculty is its principal capital (1974). The number of articles and books addressing faculty concerns, morale, efficiency, and productivity has increased dramatically in the last decade or two. Many of these articles and books have been speculative in nature but few have been empirically based. They have advanced a variety of prescriptions for enhancing faculty vitality, including faculty development. This paper reports the results of one attempt to implement the prescription for faculty development in a specific institutional case. It describes student reaction to the courses taught by faculty members who participated in a faculty development program in Midwestern liberal arts college.

Faculty development can take a variety of forms. Models of faculty development programs have been advanced by Bergquist and Phillips (1975), Gaff (1976), and Nelson and Siegel (1980). Bergquist and Phillips stated that the essential components of any faculty development program are instructional development, organizational development, and personal development. Similarly, Gaff listed faculty development, instructional development, and organizational

development. Gaff's faculty development component included teaching improvement. Nelsen and Siegel suggested four areas of faculty development: professional development, instructional development, curriculum change, and organizational change. They noted that instructional development includes activities that promote the sharing of ideas for teaching, the consideration of new as well as old approaches, and the acquisition of new skills while curricular change includes activities resulting in the revision of existing courses, the design of new courses, and the purchase of curriculum materials.

Clark, Corcoran, and Lewis (1986) stressed the special attention that situational and contextual aspects must be given in tailoring faculty vitality policies and programs to institutional concerns. They wrote that institutions emphasizing teaching and/or service will need to focus more on faculty development policies that revitalize routine teaching and retrain faculty for shifting curricular emphases than institutions emphasizing a research and scholarly orientation.

Clark et al. asked what might be done to enhance the vitality of existing faculty in whom resources have been invested and to whom institutional commitments have been made. The college in this study--a private, coeducational, independent, church-affiliated institution--attempted to find an answer to this question. Drawing upon the models

advanced by Bergquist and Phillips, Gaff, and Nelson and Siegel, the college designed a development program for its liberal arts faculty and sought and received funding from the Bush Foundation Faculty Development Program. Primarily a teaching rather than a research institution, the plan focused on curricular and instructional development as an integral part of faculty development. Among the many provisions of the grant was one that provided money for faculty members to develop and/or revise courses. The intent of this provision was to revitalize teaching.

Design of the Study

Under the Bush Faculty Development Program grant provisions, faculty members were encouraged to request funding for the purpose of revising existing courses and/or developing new courses. Those who submitted a clearly defined plan for developing or revising courses in their field, in the judgment of a five member faculty development committee, received funding. Seventeen faculty members with three to twenty-three years of experience were awarded development grants. They were from all academic divisions in the college including humanities, the arts, natural sciences, social sciences, and education.

Student evaluations of the courses provided the data for the study. Effectiveness in teaching has been the principal criterion for judging faculty eligibility for promotion and tenure, and evidence of excellence is gathered

from evaluations by students in all classes, from reviews by department chairpersons, and from self-evaluations by the faculty members themselves. The college has developed a thorough and systematic means for collecting and analyzing student evaluations of all courses. Although the evaluation form which the college uses includes a number of items related to the clarity of goals of the course, its organization, the degree of challenge provided, and the willingness of the instructor to provide help to students when needed, it was the final question on the form that asked students to rate the overall effectiveness of the course that provided the data for the study.

Student evaluation data on all existing, revised, and new courses was gathered. Student evaluations of each course prior to revision and after revision were compared. If there were multiple sections in the same year, the unweighted average of the sections was used. Where faculty members revised more than one course, the courses were treated as separate entities. The course was therefore the unit of analysis. Altogether, appropriate data were available for 27 courses.

Data Analysis

Revised Courses. A paired group t-test on the pre-revision and post-revision evaluation averages for the 27 courses showed a statistically significant difference in favor of the revised courses. The average on the

pre-revision courses was 3.67, on the post-revision 3.93. This amounted to approximately half a standard deviation of the pooled rating averages. The t value for the difference was 2.52 which is statistically significant at the p=.02 level. This represents a magnitude of effect that is considered respectable in curriculum research. It is important to note that gains occurred for courses evaluated high initially as well as for those evaluated low initially. See Table 1.

Insert Table 1 about here.

The data were further analyzed to determine if the effects of revision were comparable for faculty members with varying levels of experience. Those who had been teaching seven years or less were identified as less experienced and those 10 years or more as more experienced. The less experienced group had a somewhat higher pre-revision evaluation average than the more experienced (3.79 vs. 3.48) but the difference was not statistically significant. The less experienced group also had a higher post-revision evaluation average than the more experienced (4.09 vs. 3.65) but here the difference was statistically significant ($t=2.63$; $p<.02$)

To address more directly the question of whether or not there was greater improvement by less experienced faculty,

an analysis of covariance was run with post-evaluations as the dependent variable and pre-evaluations as the covariate. (In effect, the post-evaluations for courses were predicted as well as possible from their pre-evaluations and then the additional predictive power of faculty experience was tested.) The result was that the greater gain by the less experienced group (+.31 vs. +.17 scale points) proved to be statistically significant [$F(1,24)=4.75$; $p=.04$]. The revised courses of more experienced faculty typically were evaluated about the same as they were before revision; the courses of less experienced faculty typically were evaluated higher, especially for courses initially receiving less positive evaluations. Because the difference is only marginally significant and because there were multiple courses taught by the same instructors (which might exaggerate the significance), it would be unwise to take this finding too seriously.

The major conclusion from this phase of the study is that the revision process resulted in higher student evaluations. There is some evidence that less experienced faculty profit somewhat more from revision than do more experienced faculty. (See Table 2.)

Insert Table 2 about here.

New Course Development. A procedure similar to the study of revised courses was followed to examine newly developed courses supported by faculty development funds. However, since there could be no pre-evaluations, the only possible comparisons could be those of the new courses with the overall average for the college or with the usual averages of the instructors developing the courses. Examination of the overall and usual means revealed them to be identical, i.e., 3.88. There were 15 new courses developed by 10 instructors. Again the course was used as the unit of analysis.

The mean of the student evaluations for the new courses (3.69) was slightly below the mean of the usual average evaluations for the faculty (3.88). A paired-group t-test showed that the difference was not statistically significant. Thus there is no convincing evidence that the new courses were evaluated lower than usual in spite of the difficulty and roughness that are likely to attend a first try at a new course. (See Table 3.)

Insert Table 3 about here.

A comparison was made between the evaluations of less experienced and more experienced faculty members. Although one group was very small--only five faculty members had been at the institution 10 years or more--there was, nonetheless,

an interesting difference in evidence. The more experienced faculty members had a slightly higher mean rating for their usual courses, i.e., courses that were not new, than did the new faculty (4.05 vs. 3.79). They had a slightly lower mean rating, however, for their new courses (3.58 vs. 3.75). Neither of these differences was statistically significant by itself. Nonetheless, further analysis revealed that the new course evaluations for the less experienced faculty were significantly higher than would have been expected from their usual average ratings. An analysis of covariance in which the dependent variable was the new course rating and the covariate was the instructors' usual average evaluation showed a statistically significant advantage for the less experienced faculty [$F(1,12)=5.86$; $p=.03$). In Table 4 this effect can be seen in the scattergram of new course evaluations averages vs. instructors' usual evaluation averages where the more experienced faculty plot-points (x's) are all closely clustered below the "equal ratings" line.

Insert Table 4 about here.

The evidence suggests that new courses are not regarded by students as significantly poorer than established courses. However, more experienced faculty members' courses, unlike those of less experienced faculty members,

are not evaluated as positively as their established courses.

Conclusions

Eble and McKeachie (1985) recently noted that the surprizing fact about faculty development is not its rapid rise but rather that it has occupied so little attention in the past. For many years there has been support to develop faculty members as researchers but little support to develop them as teachers. This support has very often taken the form of grants and leaves--two of the most commonly named staff development activities--but they seem directed more toward increasing scholarly productivity than increasing teaching effectiveness. Indeed, Ingraham (1965) stated that the chief purpose for leaves in colleges and universities is for research, writing, and study at the level of trained active scholar while the reason for leaves from the four-year college is the pursuit of advanced work leading to the doctorate.

Colleges are today experimenting with a variety of faculty development activities. Faculty development activities are too often thought of in such limiting terms as taking leaves (both sabbatical and single term), attending conferences, workshops, and seminars, or acquiring grants. This project attempted to include other development activities including course revision and course development

and those activities did change student evaluations of their courses.

The analysis of student evaluations of courses before and after revisions revealed a significant increase in student evaluations after revisions. In addition, analysis suggests that faculty with few years of experience tended to gain most in terms of student evaluations after revision. The analysis of new courses revealed that new course evaluations were not significantly lower than all-college evaluations.

Because of the case study design employed in this study, the findings cannot be generalized to other institutional situations. If it were to serve local institutional decision-making, the study would need to be replicated in that local setting; if it were to serve a broader audience, studies of more controlled design would need to be conducted.

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Table 1. Student Evaluations of Revised Courses (N=27)

	Mean	Standard Deviation	T Value	2-tail Probability
Prior rating	3.67	.61	-2.52	.018
Post rating	3.93	.47		

Table 2. Student Evaluations of Revised Courses

Each o or x represents a course. An o represents a course taught by a faculty member with "less experience" and an x a course taught by a faculty member with "more experience". Each course is placed at the point of intersection of its pre-rating (horizontal axis) and its post-rating (horizontal axis) scores. Those above the equal rating line show gains in student evaluation ratings; those below the line show losses in ratings. For example, the x inside the square represents a course that received a pre-rating evaluation mean rating of 2.5 and a post-rating evaluation mean rating of 3.5.

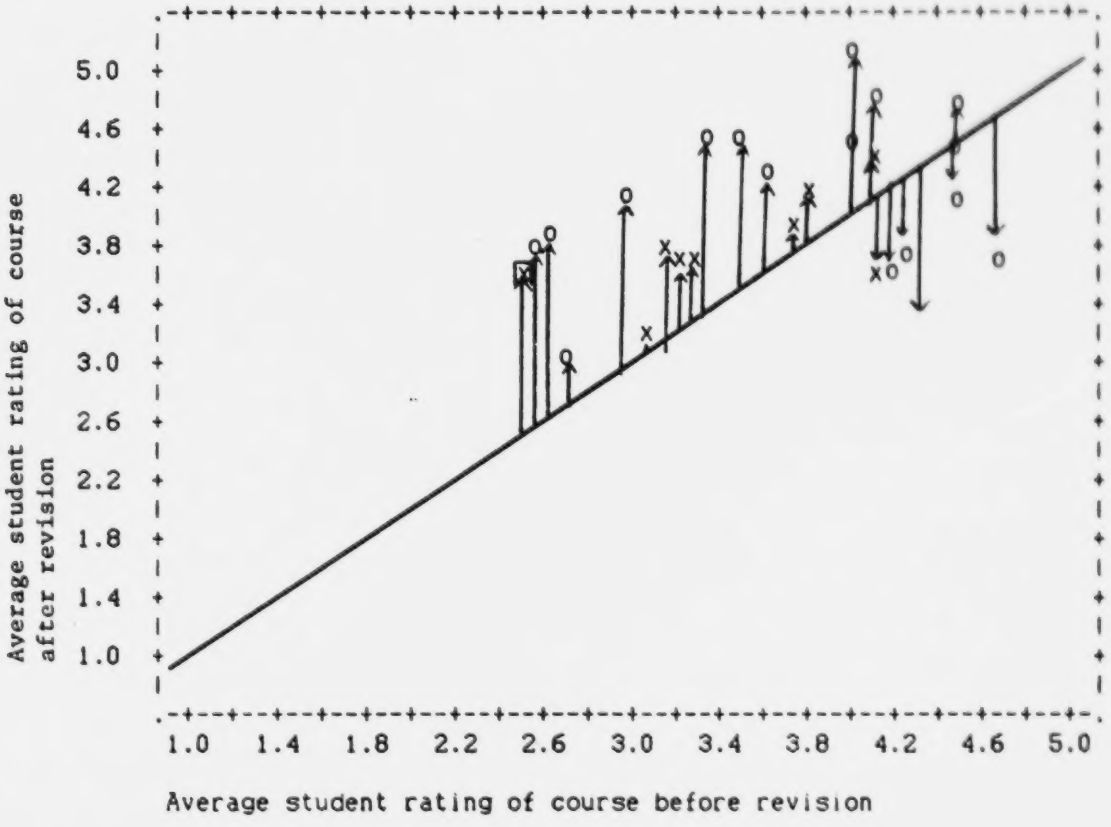

Table 3. Student Evaluations of New Courses (N=15)

	Mean	Standard Deviation	T Value	2-tail Probability
Prior rating	3.69	.70	-1.56	.141
Post rating	3.88	.40		

Table 4. Student Evaluations of New Courses

Each o or x represents a course. An o represents a course taught by a faculty member with "less experience" and an x a course taught by a faculty member with "more experience". Each course is placed at the point of intersection of its rating (horizontal axis) and the rating (horizontal axis) of other courses taught by that faculty member. Those above the equal rating line show higher student evaluations for new courses; those below the line show higher evaluations for other-than-new courses.